KUZIN, P.P., inzh.

Drvices for cutting rings of bicycle-tube waste. Izobr. i rats. 3 no.5:17 My '58. (MIRA 11:9)
(Cutting machines)

KUZIN, P.P., inzh.

Machine tools designed by engineer Gridnev. Izobr. i rats. no.6:9-11 Je '58. (MIRA 11:9)
(Machine tools)

BREGMAN, G. R. and KUZIN, P. S.

"Transformation of the Hydrological Processes of Protective Tree Plantations," Meteorologiya i Gidrologiya, Issue No. 1, 1949.

U-1442, 28 Aug. 51

PA 63/49T111

KUZIN, P. S.

USSR/Soil Science Jul 49
Erosion
Soil Conservation

"The Influence of Forests on the River Water Level and on Subterranean Water," P. S. Kuzin, 7½ pp

"Priroda" No 7

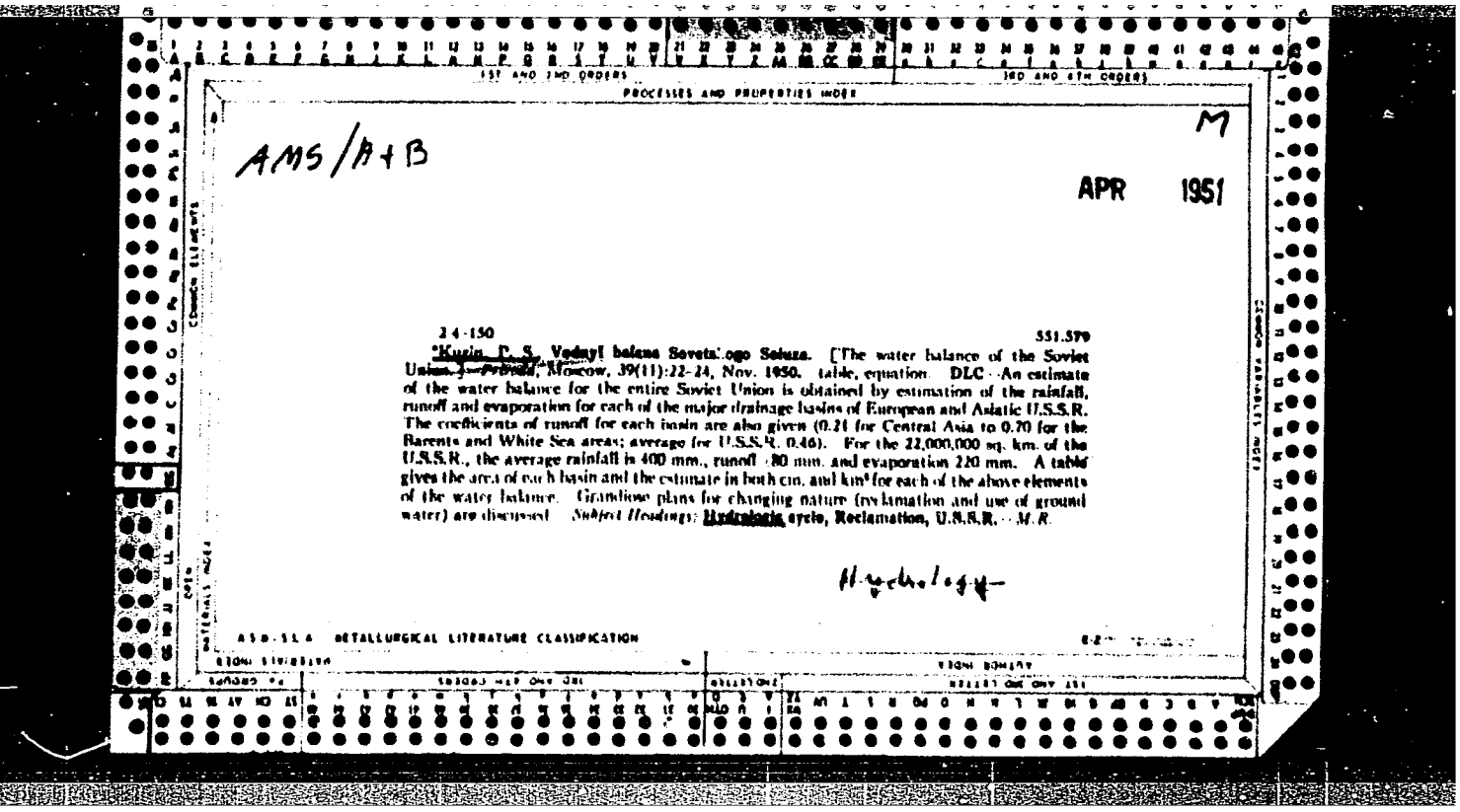
Study of the effect of forests on climate and river levels is traced from 1649 to the Stalin forestation plan. Conclusion is reached that the plan will: (1) give the soil abundant moisture and feed subterranean waters, (2) lessen erosion, and (3) decrease the height of flood stages in rivers while increasing their duration thus eliminating catastrophic

63/49T111

USSR/Soil Science (Contd) Jul 49

flood peaks prevalent in unwooded river basins. This will result in greater water resources in early summer.

63/49T111



PROCESSES AND PROPERTIES INDEX

AMS/A+B

M

APR 1951

24-150 551.579

*Kuzin, P. S. **Vodnyĭ balans Sovetskogo Soiuza.** ["The water balance of the Soviet Union."] *Priroda*, Moscow, 39(11):22-24, Nov. 1950. table, equation DLC -- An estimate of the water balance for the entire Soviet Union is obtained by estimation of the rainfall, runoff and evaporation for each of the major drainage basins of European and Asiatic U.S.S.R. The coefficients of runoff for each basin are also given (0.21 for Central Asia to 0.70 for the Barents and White Sea areas; average for U.S.S.R. 0.46). For the 22,000,000 sq. km. of the U.S.S.R., the average rainfall is 400 mm., runoff 180 mm. and evaporation 220 mm. A table gives the area of each basin and the estimate in both cm. and km³ for each of the above elements of the water balance. Grandiose plans for changing nature (reclamation and use of ground water) are discussed. *Subject Headings:* Hydrologic cycle, Reclamation, U.S.S.R. -- *M.R.*

Hydrology

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZIN, P.S.; NORVATOV, A.M., redaktor; RULEVA, M.S., tekhnicheskiy redaktor

[The Volga to-morrow] Volga zavtra. Leningrad, Gidrometeorologicheskoe izd-vo, 1951. 55 p. [Microfilm]. (MLRA 8:7)
(Volga River)

KUZIN, P.S.; VOSKRESENSKIY, K.P.

[Hydrology of the rivers in the southern regions of Western Siberia and in Northern and Central Kazakhstan] Rezhim rek iuzhnykh raionov Zapadnoi Sibiri, Severnogo i TSentral'nogo Kazakhstana. Pod red. K.P.Voskresenskogo. Leningrad, Gidrometeoizdat, 1953. 538 p. (MLRA 8:1)

(Siberia, Western--Rivers) (Kazakhstan--Rivers)

KUZIN, P. S.

"Organization and Setup of Investigations Into the Influence of Agrotechnical Measures Upon River Runoff," Meteorol. i gidrologiya, No 1, 1954, pp 23-25

The author considers the problem of the organization of investigations into the influence of agrotechnical measures and agricultural cultivations upon runoff. He proposes the establishment of experiments on large tracts of 100-200 hectares and more which would permit one to ensure grass crop rotation and soil handling turning out as desired in any region. The boundaries of the fields should preferably coincide with the water divides of the ravines and valleys. The investigations should include observations on the surface and ground runoff, meteorological and agrometeorological observations according to special programs. (RZhGeol, No 5, 1954)

SO: Sum. No. 568, 6 Jul 55

KUZIN, P.S.

Flow volumes of spring floods in rivers of the plain of the U.S.S.R.
Trudy GGI no.50:3-55 '55. (MLRA 9:8)
(Floods) (Stream measurements)

KUZIN, P.S.

AID P - 2510

Subject : USSR/Meteorology

Card 1/1 Pub. 71-a - 20/26

Author : Mezentsev, V. S., Kand. of Tech. Sci.

Title : P. S. Kuzin, Rezhim rek yuzhnykh rayonov zapadnoy Sibiri, Severnogo, Tsentral'nogo Kazakhstana (Flow Conditions of Rivers in Southern Regions of West Siberia, and Northern and Central Kazakhstan) Gidrometeoizdat, Leningrad, 1953. (Book Review)

Periodical : Met. i Gidro., 3, 58-60, My-Je 1955

Abstract : The author of the article gives a very favorable review of this new textbook for its exact presentation of factual data on flow, precipitation, climatic conditions and general physico-geographical factors for different watersheds of the analyzed areas.

Institution: None

Submitted : No date

KUZIN, P. S., V. S. MEZENTSOV, V. I. ASTRAKHANTSEV and G. V. LOPATIN

Delivered a report on questions of hydrological partitioning.

report presented at the 3rd All-Union Hydrological Congress, 7-17 Oct 1957, Leningrad.

(Izv. Ak Nauk SSSR, ser geograf., 3, pp3-9, '58)

AUTHOR: Kuzin, P. S. SOV/2o-121-2-16/53

TITLE: A Genetic Scheme of Classifying the Rivers and of Subdividing the USSR Into Hydrological Regions (Geneticheskaya skhema klassifikatsii rek i gidrologicheskogo rayonirovaniya SSSR)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 2, pp. 253 - 256 (USSR)

ABSTRACT: In continuation of previous papers (Refs 1 - 12) dealing with the division into hydrological regions and with the cartographic survey of which, with the water conditions of the rivers and the zonal modifications of the hydrological conditions in the territory of the USSR, the author in the present paper presents a new scheme giving special regard to geographical conditions. This scheme is based on the division of the rivers from the viewpoint of landscape and also of hydrology. So according to their total fall the rivers at first are divided into lowland and mountain streams. The following zones are classified to the first group; the arctic region, the tundra-, forest-, steppe-, semidesert-, and the desert zone. The range in elevation of these rivers

Card 1/3

along their whole course is 300 to 500 m at the most similar zones are classified to the mountain streams(difference elevation of more than 500 m), with the only difference that these zones are called mountain-arctic region, mountain-tundra etc. The main part of Russia (from North to South) is covered by the tundra-, forest-, steppe-, semidesert-, and desert zone (southwest of the Caspian Sea). Only along the Ural and the south and east borders mountain zones in a hydrological sense can be found. Such a hydrological map is shown in table 1. The classification of the rivers according to water conditions is carried out according to their flood stages or inundations, respectively. In the first group the flood stage occurs in consequence of snow-break, in the second group in consequence of both rain and snow-break and in the third group only in consequence of rain. There are 1 figure, 2 tables, and 14 references, 14 of which are Soviet.

A Genetic Scheme of Classifying the Rivers and of Subdividing the USSR Into Hydrological Regions SOV/2o-121-2-16/53

ASSOCIATION: Gosudarstvennyy gidrologicheskiy institut, Leningrad (Hydrological State Institute, Leningrad)

PRESENTED: March 8, 1958, by A.A.Grigor'yev, Member, Academy of Sciences, USSR

SUBMITTED: March 4, 1958

Card 3/3

URYVAYEV, V.A., kand.tekhn.nauk, obshchiy red.; VOSKRESENSKIY, K.P., kand.geograf.nauk; red.; KUZIN, P.S., kand.geograf.nauk, red.; PROTAS'YEV, M.S., kand.geograf.nauk, red.; CHEBOTAREV, A.I., kand.tekhn.nauk, red.; SHATILINA, M.K., red.; VLADIMIROV, O.G., tekhn.red.

[Surface water resources in regions of reclaimed virgin and waste lands] Resursy poverkhnostnykh vod raionov osvoeniia tselinnykh i zalezhnykh zemel'. Leningrad, Gidrometeor.izd-vo. No.3. [Kokchetav Province, Kazakh S.S.R.] Kokchetavskaia oblast' Kazakhskoi SSR. Pod obshchei red. V.A.Uryvaeva. 1959. 563 p. (MIRA 12:10)

1. Leningrad. Gosudarstvennyy gidrologicheskiy institut. 2. Direktor Gidrologicheskogo instituta (for Uryvayev).
(Kokchetav Province--Hydrology)

KUZIN, P.S.

Genetic basis for establishing types of the water regimen of rivers in the U.S.S.R. Sbor. rab. po gidrol. no.1:23-31 '59.
(MIRA 15:2)

1. Gosudarstvennyy gidrologicheskiy institut.
(Rivers)

KUZIN, Pavel Sergeyevich; SPENGLER, O.A., kand.geogr.nauk, otv.red.; SHATILINA, M.K., red.; VLADIMIROV, O.G., tekhn.red.

[Classification of rivers and division of the U.S.S.R. into hydrological regions] Klassifikatsiia rek i gidrologicheskoe raionirovanie SSSR. Leningrad, Gidrometeor.izd-vo, 1960. 454 p. (MIRA 13:8)

(Rivers)

KUZIN, P.S.

Rivers as the result of physicogeographical factors. Izv.Vses. geog.ob-va 92 no.5:441-442 S-O '60. (MIRA 13:9)
(Rivers)

KUZIN, P.S.

Some hydrological definitions and concepts. Izv.Vses.geog.ob-va 93 no.3:260-264 My-Je '61. (MIRA 14:5)
(Hydrology--Terminology)

DOMANITSKIY, A.P.; KUZIN, P.S.; MAKAREVICH, T.N.

Aleksandr Mikhailovich Norvatov; obituary. Meteor. i gidrol. no.4: 58 Ap '63. (MIRA 16:5)
(Norvatov, Aleksandr Mikhailovich, 1905-1962)

KUZIN, P.S.

The law of geographical zoning and its significance for hydrology. Izv. Vses. geog. ob.-va 97 no.2:159-162 Mr-Ap '65. (MIRA 18:5)

KUZIN, P.S., doktor geograf.nauk

Applicability of an "evaporation graph." Meteor. i gidrol. no.4:32-33 Ap '65. (MIRA 18:4)

1. Gosudarstvennyy gidrologicheskiy institut.

KULIN, G.F.

Methodology and practical procedures of hydrologic regionalization. Trudy GGI no.123:153-166 '65. (MIRA 18:8)

KUZIN, P.S.

Influence of agrotechnical measures on streamflow. Trudy GGI no.127 82-100 '65. (MIRA 18:9)

ACC NR: AT6036600 SOURCE CODE: UR/0000/66/000/000/0236/0237

AUTHOR: Kuzin, R. A.; Nevskaya, G. F.; Popov, V. I.; Sychkov, M. A.; Shafirkin, A.V. Yurgov, V. V.; Abramova, G. M.; Ginzburg, Ye. V.; Kalandarova, M. P.

ORG: none

TITLE: Experimental investigation of the effectiveness of local radioprotective shielding [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 236-237

TOPIC TAGS: radiation shielding, solar flare, cosmic radiation biologic effect, radiation protection, radiation dosimetry

ABSTRACT:

Many difficulties are encountered in selection of a radiation method suitable for study of the effect of local shielding. The radiation field within the limits of the irradiated object must not vary more than ±10%. The dose differential among absorbed doses must not exceed ±10%. Local shielding must produce at least a tenfold weakening of the dose. Furthermore, dose power must be sufficiently high to model solar flares, con-

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sidering the limited stay of the irradiated animal in a fixed position. Experimental calculations of the passage of protons through tissue have shown that high-energy protons scatter very little. For example, the average angle of multiple scattering for 660-Mev protons passing through a lead filter with a thickness of 100 g/cm^2 is approximately 2°.

Selection of proton energies was made using data on the distribution of absorbed doses created by monoenergetic protons with energies from 100—600 Mev in a water phantom. Since these distributions have a dose differential greater than 10% with shielding thicknesses up to 20 g/cm^2, it was decided to irradiate the animals from two sides. Maximum equalization of distribution with this method was obtained with 250-Mev protons. The local shield used was made of paraffin. A radiation field was produced at the irradiated object with a difference of ±20%. To obtain more uniform radiation, animals were placed asymmetrically to the axis of the proton beam and each side received half of the dose.

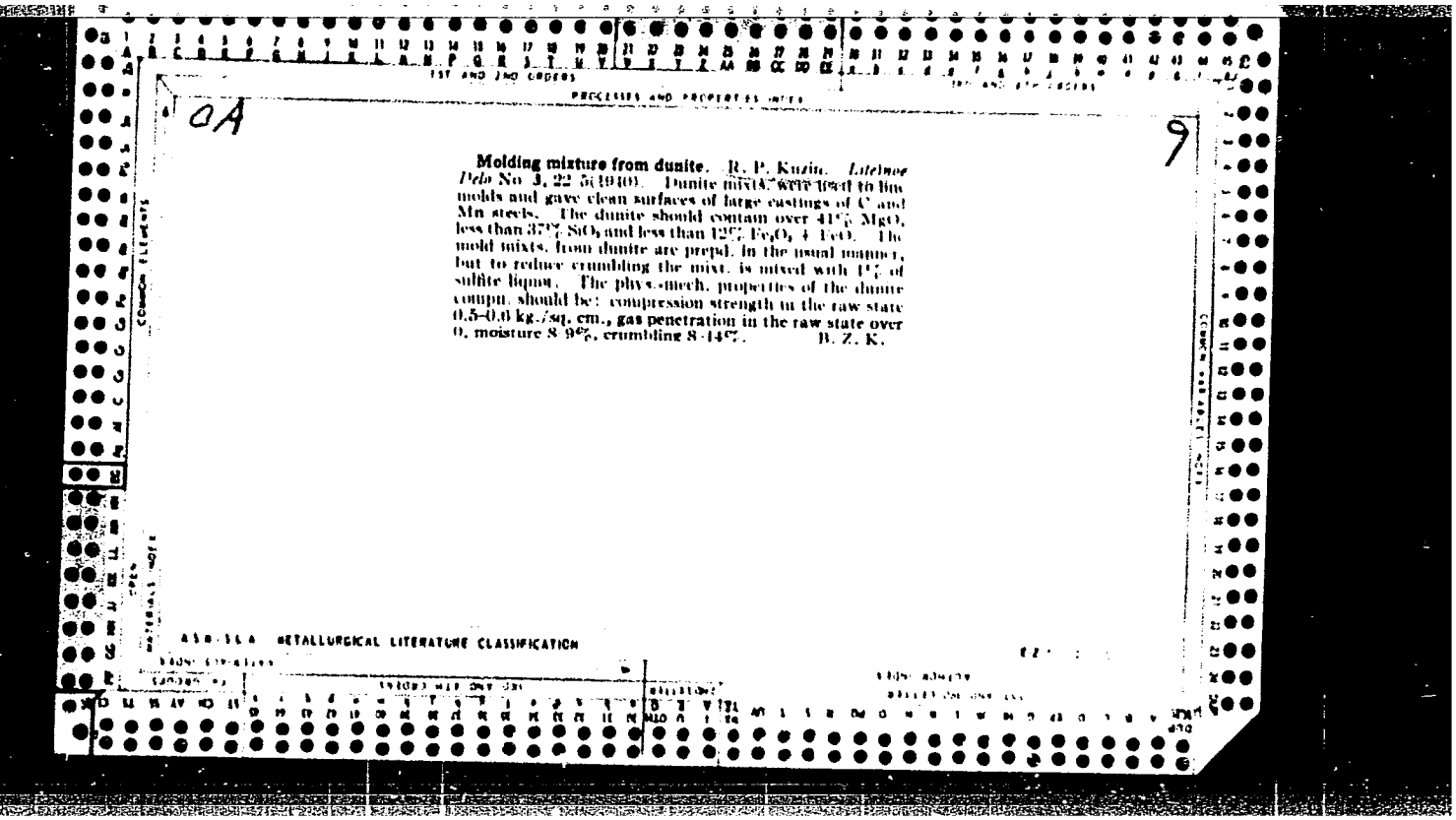
This method was perfected with a heterogeneous bone-paraffin phantom. Measurements made with this phantom showed a radiation field varying only 11% on the animals' surface. Furthermore, the differential of absorbed doses did not exceed 5%. When individual body parts were shielded, the

ACC NR: AT60 36600

dose decreased 10-15 times behind the shield. Thus the method described satisfies all the requirements listed above, and can be used in radiobiological study of the effectiveness of local shielding. [W. A. No. 22; ATD Report 66-116]

SUB CODE: 06, 18 / SUBM DATE: 00May66

Card 3/3



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9

Molding mixture from dunite. R. P. Kuzin. *Litelnoe Delo* No 3, 22 5(1940). Dunite mixt. was used to line molds and gave clean surfaces of large castings of C and Mn steels. The dunite should contain over 41% MgO, less than 37% SiO_2 and less than 12% Fe_2O_3 + FeO. The mold mixts. from dunite are prepd. in the usual manner, but to reduce crumbling the mixt. is mixed with 1% of sulfite liquor. The phys.-mech. properties of the dunite compn. should be: compression strength in the raw state 0.5–0.6 kg./sq. cm., gas penetration in the raw state over 0, moisture 8–9%, crumbling 8–14%. B. Z. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZIN, R. P.

USSR/Engineering - Foundry, Methods Nov 51

"Organization of Patternmaking," R. P. Kuzin, I. M. Pinrusov, Engineers

"Litey Proizvod" No 11, p 34

Describes organization of patternmaking shop at Ural Mach Bldg Plant. Work is arranged on principle of labor division assigning each workman to a single operation with limited number of operational elements. Better use of working space, machine tools and mechanisms was achieved. Gives block diagram.

198T18

DEMAKOV,A.Ye.; KUZIN,R.P., laureat Stalinskoy premii, inzhener, redaktor; BUTAKOV,D.K., kandidat tekhnicheskikh nauk, retsenzent; DUGINA,N.A., tekhnicheskiy redaktor

[Methods for rapid high quality steel making] Skorostnoi metod kachestvennogo stalevareniia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1952. 41 p. [Microfilm] (MLRA 9:3)
(Steel industry)

KUZIN, R.P.; PINTUSOV, I.M.

[General application of Stakhanovite experience; from the practice of the Ural Heavy Machinery Plant] Kompleksnoe obobshchenie stakhanovskogo opyta; iz praktiki Uralmashzavoda. Sverdlovsk, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry [Uralo-Sibirskoe otd-nie] 1952. 94 p. (MLRA 6:8)
(Efficiency, Industrial) (Industry--Organization, control, etc.)

KUZIN, B.P.

ZAKHAROV, B.P.; GOROSHKOV, A.A., doktor tekhnicheskikh nauk, retsenzent; ZHAROV, N.T., doktor tekhnicheskikh nauk, retsenzent; KUZIN, B.P., inzhener, retsenzent; DUGINA, N.A., tekhnicheskiy redaktor

[Foundry practice] Liteinoe proizvodstvo. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 64 p. (Nauchno-populiarnaia biblioteka rabochego-liteishchika, no.1) [Microfilm] (MIRA 8:2)
(Founding)

KOSARIKOV, N.F.; NOSKOV, B.A.; SMELYAKOV, N.N.; KUZIN, R.P., inzhener, redaktor; BORETSKIY, A.A., dotsent, retsenzent; [redacted] N.A., tekhnicheskiy redaktor.

[The technology of casting parts] Tekhnologichnost' litykh detalei. Izd. 2-e, perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1954. 278 p. (MIRA 8:4)
(Founding)

KUZIN, ROMAN PETROVICH

GUSEV, Aleksandr Semenovich; KUZIN, Roman Petrovich; POPOV, Andrey Dmitriyevich; DUGINA, N.A., tekhnicheskiy redaktor

[Reducing metal loss in riser heads] Snizhenie raskhoda metalla na pribyli otlivok. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 26 p. (MLRA 10:5)
(Founding)

40136
S/103/62/023/008/006/006
D409/D301

9,7500

AUTHORS: Aleksandrovskiy, I.M., Bondarevskiy, A.S. and Kuzin, R. Ye. (Moscow)

TITLE: A ferrite-transistor reversive counter

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 8, 1962, 1112 - 1115

TEXT: A binary ferrite-transistor counter is described which is used in multi-channel automatic-search systems. The counter has great reliability and simplicity. Its main element is a ferrite-transistor flip-flop (shown schematically in a figure). The flip-flop differs from the ordinary ferrite-transistor circuit by the presence of the diode D and of the resistor R in the base-circuit. A second diode is connected in parallel with R. Such a flip-flop, incorporating 2 diodes, is more stable in operation than the one-diode flip-flop, described by H.R. Irons (Ref. 5: A Transistor-Magnetic Core Binary Counter. Proc. I.R.E., v. 46, no. 12, 1958). The operation of addition

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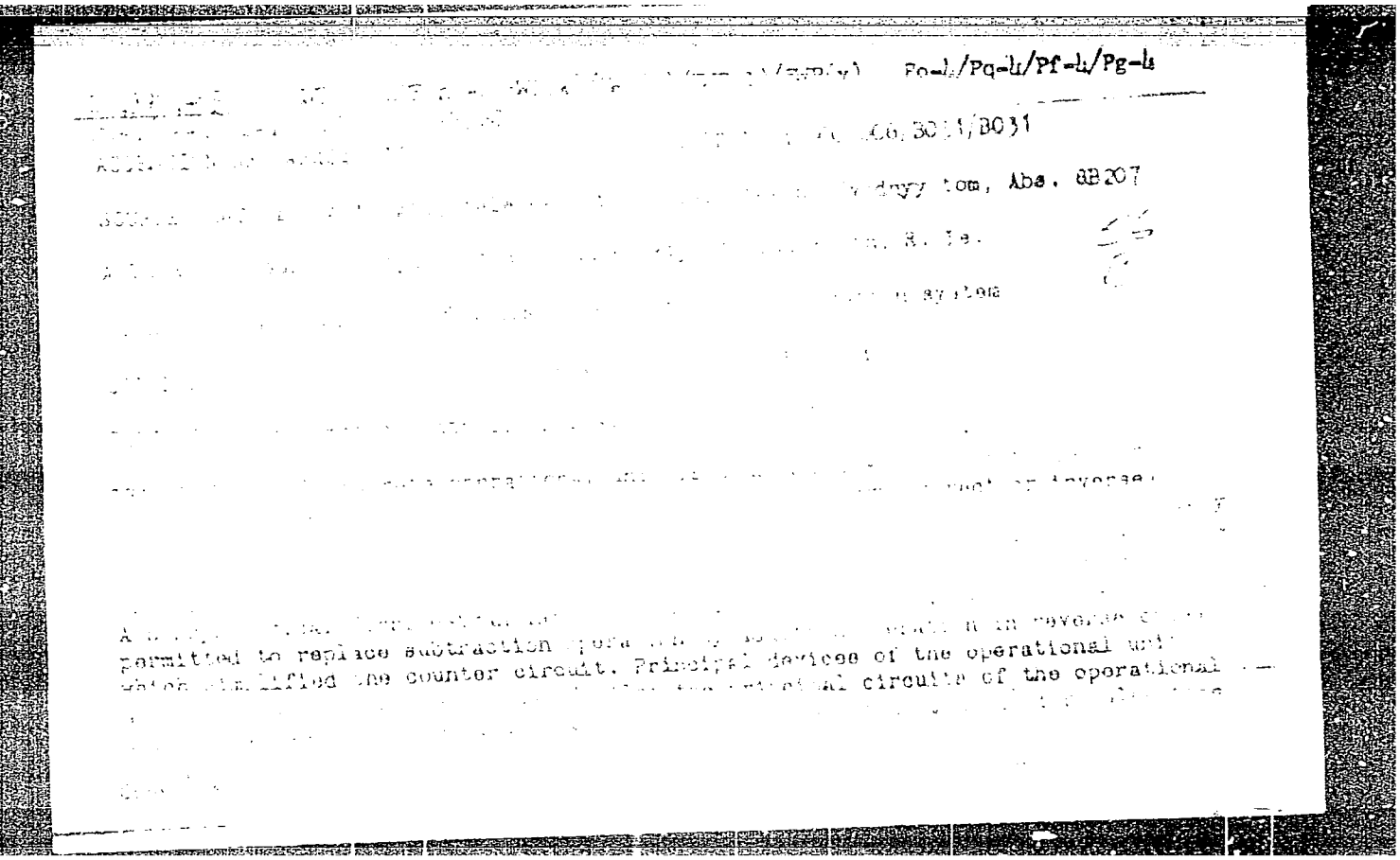
is carried out in the inverse code which is not the case in ordinary counters; this made it possible to dispense altogether with commutators at the flip-flop outputs; thereby the circuit becomes simpler and its operation more reliable. The counter performs the operation $\Delta Q = -Q_1 + Q_2$ in 4 stages. The basic diagram of the counter is shown in a figure. Each flip-flop triggers the one that follows, so that a backward flow of information is excluded. All the ferrites of type BT - 5 (VT-5) are semiconductor triodes of type П 16 (P16) and П 202 (P202), and diodes of type Д 7 (D7) and Д 103 (D103). The parameters of the counter are listed. The range of values of these parameters may be fairly wide. A model counter, incorporating 11 flip-flops, was laboratory-tested. It was found to be very reliable in operation, working for a long time under laboratory conditions. There are 4 figures.

SUBMITTED: March 8, 1962

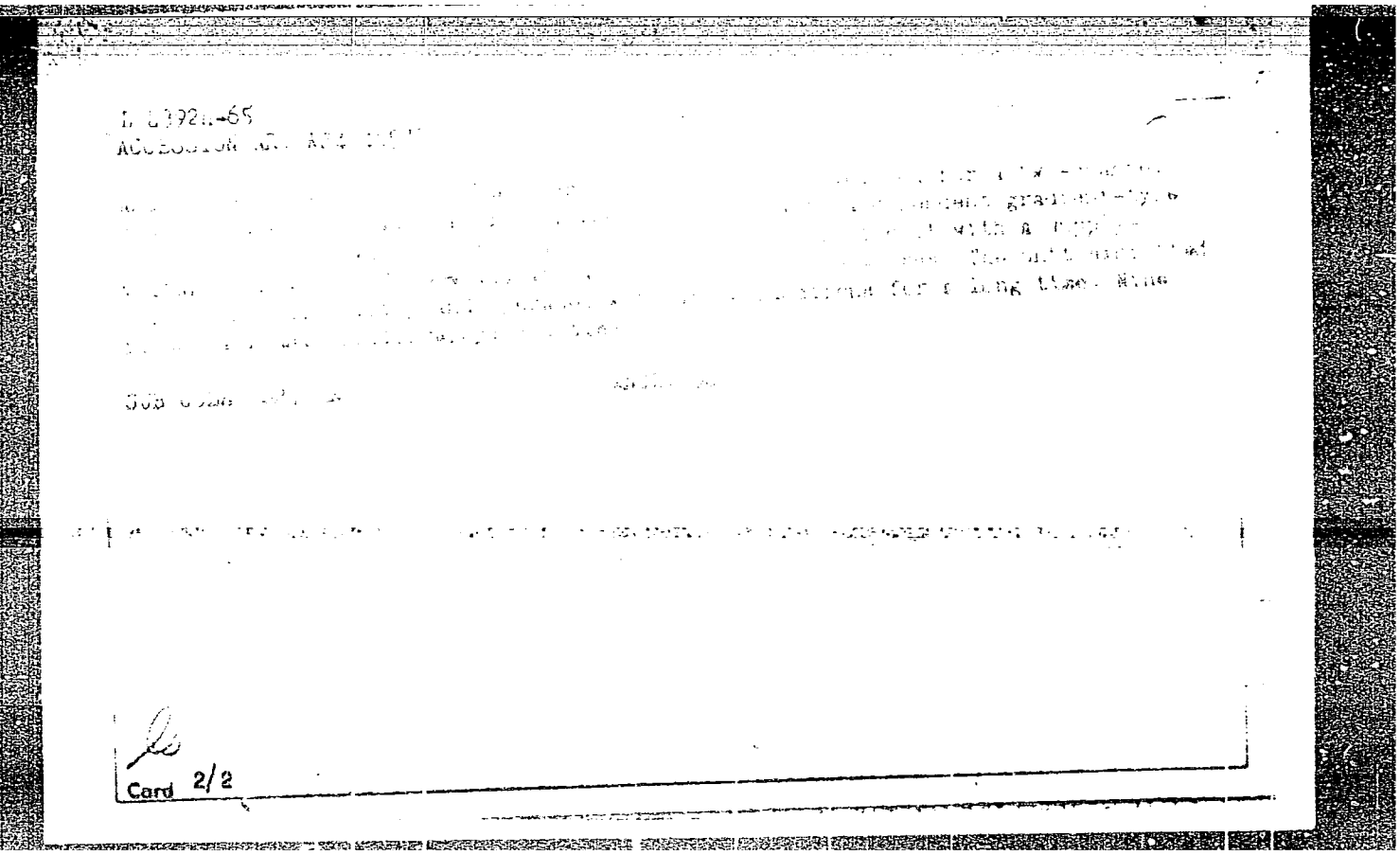


Fo-4/Pq-4/Pf-4/Pg-4

permitted to replace subtraction

counter circuit. Principal devices of the operational

circuits of the operational



Card 2/2

ALEKSANDROVSKIY, N.M., kand.tekhn.nauk, dotsent; KUZIN, R.Ye.

Special features of automatic optimalizers for a certain class of industrial objects. Trudy MEI no.59:115-140 '65. (MIRA 18:10)

KUZ IN, R.Ye.

Optimal filter for an automatic optimalizer. Trudy MEI no.59:141-158 '65. (MIRA 18:10)

L 41147-66

ACC NR: AR6014871 SOURCE CODE: UR/0372/65/000/011/G016/G016

AUTHORS: Aleksandrovskiy, N. M.; Kuzin, R. Ye. 41 B

TITLE: Characteristics of automatic optimizers for industrial objects of one class

SOURCE: Ref. zh. Kibernetika, Abs. 11G105

REF SOURCE: Tr. Mosk. energ. in-ta, vyp. 59, 1965, 115-139

TOPIC TAGS: optimal automatic control, partial derivative, filter circuit, ethyl alcohol, quality control, optimizer / DAO-1M optimizer, DAO-2 optimizer

ABSTRACT: The design characteristics of the DAO-1M[28] and DAO-2[28] automatic optimizers,[10] which were developed at the Department of Automation and Remote Control, MEI, are described. The optimizers are designed for seeking and maintaining the optimal value of the quality index of objects whose structural circuits can be represented as two independent dynamic channels with a nonlinear inertialess element (whose characteristics vary under the influence of uncontrollable perturbations, where the rate of change is considerably less than the speed of the transients in the dynamic channels) which is common to both channels. The apparatus for contact dissociation of alcohol to divinyl and the electrochemical low-pressure generator can be represented similarly. Step-by-step independent search by the gradient method with optimization of the working steps is adopted as the method of automatic search for an extremum, a modified process in which, after a test step in one channel, the optimizer does not

Card 1/2 UDC: 62-506:65.011.56

L 41147-66

ACC NR: AR6014871 O

return to the starting point but makes a test step in the other channel. Admittedly, an error equal to the value of the test step is allowed, but the measurement time of the partial derivatives of the quality index is halved. Optimal control is sought by the principle of the maximum. Optimal filtration is used to determine the partial derivatives in the presence of noise. The structural circuit of the filter is given. 14 illustrations. Bibliography of 15 citations. B. A. [Translation of abstract]

SUB CODE: 13

Card 2/2 LC

30684
S/141/61/004/004/018/024
E140/E435

16.6800 (1024, 1327, 1329)

AUTHOR: Kuzin, S.G.

TITLE: The generation of discrete random quantities with differing distributions laws

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.4, no.4, 1961, 753-758

TEXT: The author considers the generation of a discrete random variable in which the probability of an occurrence in a given discrete time interval can be preassigned. Applications for such a generator are as follows: a) systems with a number of mutually exclusive events, the sum of whose probabilities is unity - a spatial probability distribution; b) a single series of events in which the time interval between two successive events varies - a time distribution; c) a system in which the present probability value is dependent on the value of the random variable in preceding instants of time - discrete Markov chains. The system employs the well-known equivalence between the laws of Boolean algebra and probability calculus. The basic random variable is generated by a flip-flop which is switched on and off without input signal. At each time that the flip-flop is switched on, the state into

Card 1/3

which it arrives is a function of the noise present in the system. This gives rise, with careful construction, to a binary system with probabilities varying between the range 0.48 to 0.47 for one state and 0.52 to 0.53 for the other state. An example of the application of Boolean algebra is to the case where it is desired to approach the binary random variable to a value closer to symmetrical. Employing the function

$$c = d_1 d_2 \vee \bar{d}_1 \bar{d}_2 \qquad (2.1)$$

where d_1 and d_2 are the values obtained from two flip-flops, whose probabilities are given by

$$p(d_1) = 1/2 + \varepsilon_1$$
$$p(\bar{d}_1) = 1/2 - \varepsilon_1 \qquad (2.2)$$

$$p(d_2) = 1/2 + \varepsilon_2 \qquad (2.3)$$
$$p(\bar{d}_2) = 1/2 - \varepsilon_2$$

$\varepsilon_1, \varepsilon_2 < 1/2$, the resultant probability is given by

$$p(c) = p(d_1)p(d_2) + p(\bar{d}_1)p(\bar{d}_2) \qquad (2.4)$$

that is

$$p(c) = 1/2 + 2\varepsilon_1\varepsilon_2 \qquad (2.5)$$

With n such flip-flops, it is possible to achieve

$$p(c) = 1/2 + 2^{n-1}\varepsilon^n \qquad (2.6)$$

The article indicates the logical structures necessary to realise the three types of systems mentioned above. Acknowledgments are expressed to A.S.Alekseyev for reading the manuscript. There are 6 figures, 2 tables and 1 Soviet-bloc reference.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete (Scientific Research Institute of Physics and Engineering, Gor'kiy University)

SUBMITTED: December 31, 1960

ACC NR: AP7000345 (A,N) SOURCE CODE: UR/0413/66/000/022/0107/0108

INVENTOR: Vimba, A. A.; Greben'kov, Zh. A.; Kuzin, S. M.; Ostapenko, V. A.

ORG: none

TITLE: Device for measuring the temperature of gas in a flow. Class 42, No. 188712

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 107-108

TOPIC TAGS: gas flow, measurement, temperature measurement, TEMPERATURE [redacted] instrument

ABSTRACT: An Author Certificate has been issued for a device for measuring the temperature of gas in a flow. The device consists of a shielded thermocouple located in a gas-forming plug housing into which gas is sucked from a stream in a sealed outer housing equipped with a connecting pipe for bringing in compressed air. To keep drops of the evaporating liquid and hard particles from hitting the hot thermocouple's junction, it is equipped with an air-mechanical shield (together forming a baffle) made in the form of a cylindrical plug with a conical skirt attached to the inlet of the outer housing, and with a compressed air stream going out through an annular slit between the conical skirt and the conical part of the gas-forming plug. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 20Apr65/

Card 1/1 UDC: 536.532.541.12.012.6

ROZENFEL'D, V.Ye.; SIDOROV, N.N.; KUZIN, S.Ye.; BAKOV, V.A., redaktor; VERINA, G.P., tekhnicheskiy redaktor.

[Electric railroads] Elektricheskie zheleznye dorogi. Moskva, Gos. transp. zhel-dor. izd-vo, 1951. 536 p. (MLRA 8:2)
(Electric railroads)

KUZIN, S. YE.

Electric Utilities - Rates

"Rate Setting as a Means to Increase Cos Phi" Elektrichestvo No 2, 1952. Kandidat Tekhn. Nauk, Dots. Leningradskiy Institut Unzhvnerov Zheleznodorozhnogo Transporta im. Obraztsova.

SO: Monthly List of Russian Accessions, Library of Congress, July 1952, UNCL

KUZIN, S.Ye.

Preface. Shor. nauch. trud. LETIIZHT no.5:3-4 '53. (MIRA 11:3)

1. Nachal'nik Leningradskogo elektrotekhnicheskogo instituta inzhenerov zheleznodorozhnogo transporta.
(Railroads)

KUZIN,S.Ye., kandidat tekhnicheskikh nauk, dotsent

Distribution of current between contact wire and the amplifying feeder of electric railroads. Sbor. LIIZHT no.145:4-8 '53.
(Electric railroads) (MLRA 8:10)

Kuzin, S. Ye

AID P - 2817

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 6/30

Author : Kuzin, S. Ye., Kand. of Tech. Sci., Dotsent Leningrad

Title : Calculation of average quantities in the feeding system of electric railroads

Periodical : Elektrichestvo, 6, 32-37, Je 1955

Abstract : The author disagrees with the contemporary application in the USSR of the theory of probability in calculating systems of electric traction power supply, despite the fact that calculating forms obtained with this method give satisfactory results when compared with experimental investigations. The author's objection is based on the fact that the movement of trains is not elemental and disorderly, as must be supposed when applying the theory of probability. The author suggests instead the use of a theory of mathematical statistics which operates with experimental material. In this

AID P - 2817

Elektrichestvo, 6, 32-37, Je 1955

Card 2/2 Pub. 27 - 6/30

method the concepts of the theory of probability are replaced by concepts of relative duration, and mathematical anticipation, and by an idea of average value. The author indicates some possible deviations from the average. Two graphs, 4 Soviet references (1934-1950).

Institution : Leningrad Institute of Engineers of Railway Transportation im. Obraztsov.

Submitted : O 19, 1954

KUZIN, S.Ye., kandidat tekhnicheskikh nauk, dotsent.

Calculation of the maximum root-mean-square value of the traction current in a substation by the normal distribution curve. Sbor. LIIZHT no.149:50-53 '55. (MLRA 9:6)
(Electric railroads--Substations)

ROZENFEL'D, Vitaliy Yevgen'yevich, d-r tekhn.nauk, prof.; SIDOROV, Nikolay Nikolayevich; KUZIN, Sergey Yefimovich; VLASOV, Ivan Ivanovich; SIDOROV, N.I., inzh., red.; VERINA, G.P., tekhn.red.

[Electric railroads] Elektricheskie zheleznye dorogi. Izd.2-oe, perer. Pod obshchei red.V.E.Rozenfel'da. Moskva, Gos.transp. zhel-dor.izd-vo, 1957. 431 p. (MIRA 11:1)
(Electric railroads)

KUZIN, S. Ye., kand.tekhn.nauk, dotsent

Method for calculating the system of electric power supply to single-phase industrial frequency railroads. Sbor.LIIZHT no.167:143-147 '59. (MIRA 13:5)
(Electric power distribution)
(Electric railroads)

KUZIN, S.Ye., kand.tekhn.nauk

Determination of maximum loads of the traction substations of electric railroads. [Trudy] LIIZHT no.193:178-201 '62. (MIRA 15:12)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta.

(Electric railroads—Current supply)

KUZIN, S.Ye., kand.tekhn.nauk, dotsent

Standard method for calculating the electrical load of industrial enterprises. Izv. vys. ucheb. zav.; energ. 6 no.8:38-45 '63.
(MIRA 16:9)

1. Leningradskiy ordena Lenina institut inzhenerov zheleznodorozhnogo transporta imeni akademika V.N. Obraztsova. Predstavlena kafedroy elektrosnabzheniya elekticheskikh zheleznykh dorog.
(Electric power distribution)

KUZIN, S.Ye.

Statistical methods for calculating and studying electrical loads in industrial power distribution networks. Elektrichestvo no.12:84-85 D '63. (MIRA 17:1)

KUZIN, S.Ye., kand. tekhn. nauk, dotsent

Determination of the effective loads of the traction substations of electric railroads taking into account correlation couplings between train currents. Izv. vys. ucheb. zav.; energ. 7 no.8:15-22 Ag '64. (MIRA 17:12)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta. Predstavlena kafedroy elektrosnabzheniya elektricheskikh zheleznykh dorog.

KUZIN, V.A.

Quality, reliability, durability. Inform. biul. VDNKH no.10: 6-8 O '64 (MIRA 18:1)

1. Nachal'nik otdela nauchno-tekhnicheskoy informatsii Nauchno issledovatel'skogo instituta tekhnologii avtomobil'noy promyshlennosti.

KUZIN, V.A.; NOVIKOV, O.P.

New methods for purifying suspensions in the manufacture of sugar.
Sakh. prom. 32 no. 7:33 Jy '58. (MIRA 11:8)
(Sugar manufacture)

KUTSEV, S.S.; KUZIN, V.A.; NOVIKOV, V.A.; BORISOGLEBSKIY, B.N.

Pilot plant testing of the purification of diffusion juice by a suspension of colloidal calcium carbonate with the use of separators. Sakh. prom. 33 no.2:31-34 F '59. (MIRA 12:3)

1.Nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya.
(Sugar research)

KUTSEV, S.S.; KUZIN, V.A.; NOVIKOV, O.P.; BORISOGLEBSKIY, B.N.

Comparative test data of industrial and pilot plant purification of diffusion juice. Sakh.prom. 33 no.7:76 Jl '59.
(MIRA 12:11)

(Sugar manufacture)

KUZIN, V.A.

From the shock workers and brigades to the colletives of communist labor. Razved. i okh. nedr 27 no.6:46-47 Je '61. (MIRA 14:9)

1. Severo-Zapadnyy territorial'nyy komitet profsoyuza. (Prospecting)

KUZIN, V. A.

Work of the leadership of research institutions and design bureaus in the competition for the title of collective of communist labor. Razved. i okh. nedr 28 no.5:61-63 My '62. (MIRA 15:10)

1. Severo-Zapadnyy territorial'nyy komitet professional'nogo soyuza rabochikh geologorazvedochnykh rabot.

(Prospecting)

KUZIN, V.A., inzh.; PETROV, N.P., inzh.

Centrifugal separater for liquids with automatic control. Khim. mash. no.4:5-8 Jl-Ag '61. (MIRA 14:8)
(Centrifuges) (Automatic control)

BELSKOV, V.S.; KUZIN, V.A.; SLIN'KO, M.G.

Modeling of chemical processes in the stationary bed of a catalyst. Khim. prom. 41 no.1:4-9 Ja '65. (MIRA 18:3)

TARANTOV, S.N., kandidat tekhnicheskikh nauk. KUZIN, V.G., kandidat tekhnicheskikh nauk [deceased].

Structure of aluminum alloy pipes extruded trough mandrel dies. Trudy MATI no.28:17-25 '55. (MLRA 9:7)
(Pipe) (Extrusion (Metals))

BAKAYEVA, N.N.; KUZIN, V.I.

Phagocytic activity of blood leukocytes in dysentery in its dynamic stage; author's abstract. Zhur.mikrobiol.epid. i immun. 29 no. 2:116-117 F '58. (MIRA 11:4)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova.
(DYSENTERY, BACILLARY, immunology,
phagocytosis (Rus)
(PHAGOCYTOSIS, in var. dis.
dysentery, bacillary (Rus)

L 36063-66 EWT(m)/EWP(t)/ETI IJP(c) ES/JD/WW/JG

ACC NR: AP6014723 SOURCE CODE: UR/0186/65/007/006/0722/0725

AUTHOR: Il'inskaya, T. A.; Kuzin, V. I.; Tolmachev, Yu. M.

55
B

ORG: none

TITLE: Absorption spectra of uranium oxides.
I. Infrared absorption spectrum of uranium pentoxide

SOURCE: Radiokhimiya, v. 7, no. 6, 1965, 722-725

TOPIC TAGS: absorption spectrum, uranium compound, IR absorption

ABSTRACT: The article describes the results of a comperative study of the infrared absorption spectra of U_3O_8, of U_2O_5 obtained from U_3O_8 by the method of solution in sulfuric acid, and of a substance obtained by the hydrogen reduction of U_3O_8, which corresponded to the composition U_2O_5. The starting U_3O_8 was obtained by calcining uranium peroxide, $UO_4 \cdot 2H_2O$ at 900°C for 7 hours. In some experiments, U_3O_8 prepared from ammonium diuranate was used. The ratio of the amounts of six- and four-valent uranium in the U_3O_8 was determined by titration and was found to be equal to 2.00 ± 0.02. The experimental results are shown in a series of figures and a large table. The absorption spectra for uranium pentoxide were obtained in the region 4800-400 cm^{-1}. The spectrum for

Card 1/2 UDC: 66.085.1:541.45:546.791

L 36063-66

ACC NR: AP6014723

U_2O_5 prepared by dissolving U_3O_8 in sulfuric acid differed from the spectra of U_3O_8 and of U_2O_5 obtained by hydrogen reduction, by the presence of an absorption band with maxima at 916 and 670 cm^{-1}. The presence of chains of atoms of the form U--O--U--O... was established in the lattices of uranium pentoxide, as well as in U_3O_8 and α-UO_3. The region of the stable state of U_2O_8 obtained by dissolving U_3O_8 in sulfuric acid lies below 400°C. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07, 20/ SUBM DATE: 09Nov64/ ORIG REF: 003/ OTH REF: 002

Card 2/2 vmb

KUZIN, V.I.

Good connections should be improved. Energetik 13 no.3:38-39 Mr '65.
(MIRA 18:7)

BAKAYEVA, N.N.; KUZIN, V.I.

Methods of diagnosis and recovery control in bacillary dysentery in adults. Sov. med. 24 no. 2:65-69 F '60. (MIRA 14:2)

1. Iz 2-y gorodskoy klinicheskoy infektsionnoy bol'nitsy (glavnyy vrach A.M. Pyl'tsova).
(DYSENTERY)

IL'INSKAYA, T.A.; KUZIN, V.I.; TOLMACHEV, Yu.M.

Absorption spectra of uranium oxides. Part 1: Infrared absorption spectrum of U_2O_5. Radiokhimiia 7 no.6:722-725 '65.

(MIRA 19:1)

KUZIN, V.N.

Ca

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Shaft waters of the [illegible] deposits (Transvolga region) of combustible shales. V. N. Kuzin. *Uchenye Zapiski Saratov. Gosudarst. Univ. N. G. Chernyshevskog* 15, No. 1(Miscellaneous), 25-63(1940).—The shaft water contain NaCl and Na_2SO_4. Sulfates increase in the water of the abandoned shafts, and decompn. of pyrites and oxidation of bitumens are observed. The chem. compn. of the waters of 2 shafts (from the walls and ceiling) are in mg. per l. of water, resp., Cl^- 1097 and 1082, SO_4^{--} 826 and 778, HCO_3^- 672 and 304, Ca^{++} 124 and 215, Mg^{++} 112 and 66. Eleven references. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZIN, V. N.

Kuzin, V. N. "Engineering-geological districting of Saratov and vicinity", Saratov, Issue 7, 1948, p. 47-61.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1949).

KAZHDAN, Z.A.; KUZIN, V.N.

The Stalingrad Reservoi . Uch. zap. [redacted] gos. ped. inst. no.10:19-34 '59. (MIRA 14:11)
(Volgograd Reservoir)

KUZIN, V.N.

Landslide dynamics in the lower Volga Valley. Uch.zap. Sar. un. 72:33-36 '59. (MIRA 13:8)
(Volga Valley--Landslides)

IL'MENEV, Ye.S.; KUZIN, V.N.; NIKOL'SKIY, A.L.

Studying metamict minerals under an electron microscope. Izv. vys. ucheb. zav.; geol. i razv. 7 no.11:126-130 N '64. (MIRA 18:5)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.

KUZIN, V.P.; TROFIMENKO, S.A.

Plotting the algorithm for the optimum control of ammonia synthesis shops. Khim. prom. 41 no. 12:904-910 D '65
(MIRA 19:1)

KUZIN, V.P.

Changes in the shape of a transverse cross-section bulb bar.
Sudostroenie 28 no.6:67 Je '62. (MIRA 15:6)
(Ships—Welding) (Steel bars)

KUZIN, V.P.

Automation of the technological process of the synthesis of higher alcohols. Khim. prom. 41 no.5:369-374 My '65.
(MIRA 18:6)

NAGIBINA, T.D.; YASENKOVA, L.S.; ALIKBEROVA, G.I.; KORABLEV, Yu.G.; KUZIN, V.S.; KUZNETSOVA, A.I.; ZHAROVA, A.S.; VASHUNINA, N.D.

Phenol-containing SKDF-10 rubber. Kauch. i rez. 24 no.11:2-3 '65. (MIRA 19:1)

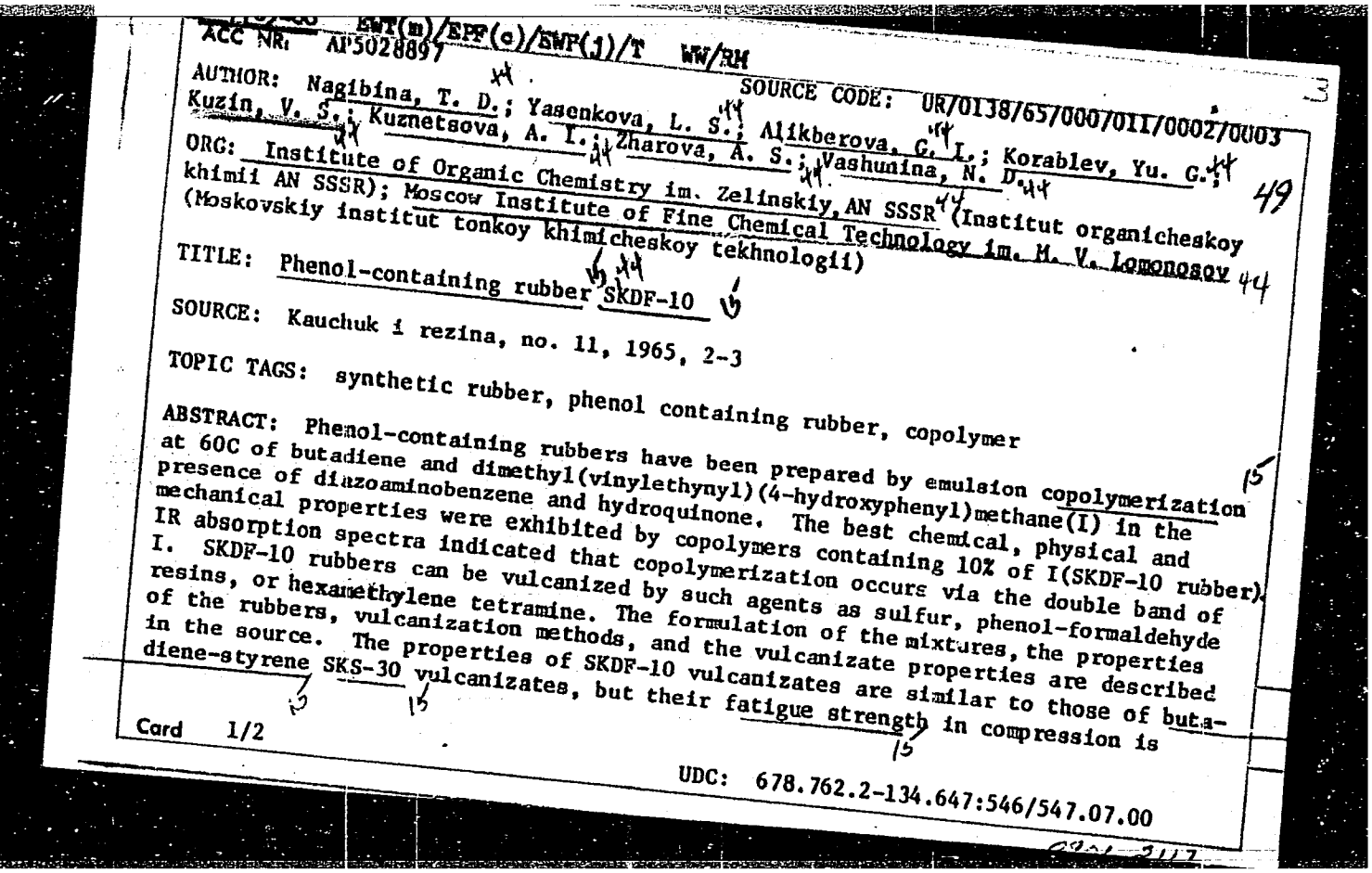
1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR i Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

KUZIN, V.S.

Decoupling networks for low-power pulse devices. Izv. vys. ucheb. zav.; radiotekh. 4 no.1:100-102 Ja-F '60. (MIRA 14:4)

1. Rekomendovano kafedroy radiotekhniki Belorusskogo politekhnicheskogo instituta.

(Pulse circuits)



EWT(m)/EPF(c)/EWP(j)/T WW/RM

ACC NR: AP5028897 SOURCE CODE: UR/0138/65/000/011/0002/0003

AUTHOR: Nagibina, T. D.; Yasenkova, L. S.; Alikberova, G. I.; Korablev, Yu. G.; Kuzin, V. S.; Kuznetsova, A. I.; Zharova, A. S.; Vashunina, N. D. 49

ORG: Institute of Organic Chemistry im. Zelinskiy, AN SSSR (Institut organicheskoy khimii AN SSSR); Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Phenol-containing rubber SKDF-10

SOURCE: Kauchuk i rezina, no. 11, 1965, 2-3

TOPIC TAGS: synthetic rubber, phenol containing rubber, copolymer

ABSTRACT: Phenol-containing rubbers have been prepared by emulsion copolymerization at 60C of butadiene and dimethyl(vinylethynyl)(4-hydroxyphenyl)methane(I) in the presence of diazoaminobenzene and hydroquinone. The best chemical, physical and mechanical properties were exhibited by copolymers containing 10% of I(SKDF-10 rubber). IR absorption spectra indicated that copolymerization occurs via the double band of I. SKDF-10 rubbers can be vulcanized by such agents as sulfur, phenol-formaldehyde resins, or hexamethylene tetramine. The formulation of the mixtures, the properties of the rubbers, vulcanization methods, and the vulcanizate properties are described in the source. The properties of SKDF-10 vulcanizates are similar to those of butadiene-styrene SKS-30 vulcanizates, but their fatigue strength in compression is

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UDC: 678.762.2-134.647:546/547.07.00

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ACC NR: AP5028897

twice as high as that of SKS-30 vulcanizates. SKDF-10 latex impregnation compositions exhibit enhanced adhesion.

[BO]

SUB CODE: MT/ SUBM DATE: none/ ORIG REF: 003/ ATD PRESS: 4142

Card 2/2

KUZIN, Ya.I.

Combined operation of rectification apparatus. Spirt. prom. 24 no.7:43-45 '58. (MIRA 11:11)
(Distillation apparatus)

ZHIGACH, K.F., prof., otv.red.; MURAV'YEV, I.M., prof., red.; TIKHOMIROV, A.A., kand.ekonom.nauk; red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; SIDORENKO, N.V., red.; BRENTS, A.D., red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHARNYY, I.A., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; DAKHNOV, V.N., prof., red.; PANCHENKOV, G.M., prof., red.; NAMETKIN, N.S., prof., red.; TAGIYEV, E.I., prof., red.; BIRYUKOV, V.I., kand. tekhn.nauk, red.; YEGOROV, V.I., kand.tekhn.nauk, red.; ALMAZOV, N.A., dotsent, red.; GUREVICH, V.M., red.; ISAYEVA, V.V., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Development of the gas industry of the U.S.S.R.; from the proceedings of the Interuniversity Scientific Conference on the Problems of the Gas Industry] Mezhvuzovskaia nauchnaia konferentsiia po voprosam gazovoi promyshlennosti. Razvitie gazovoi promyshlennosti SSSR; materialy. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 405 p. (MIRA 13:11)

1. Mezhvuzovskaya nauchnaya konferentsiya po voprosam gazovoy promyshlennosti. 2. Glavgaz SSSR (for Brents). 3. Moskovskiy institut neftekhimicheskoi i gazovoi promyshlennosti im. akad.Gubkina (for Charygin, Charnyy).

(Gas industry)

Kuzin, Ye. N.

Authors' Certificates, Elektrosvyaz', 1959, Nr. 2 SOV/106-59-2-10/11
P. 74

I.A. Khraban - "A Method for the Separation of a Narrow-bandwidth, Weak Signal from Strong, Wide-spectrum, Background Noise"; M.P. Khvorostenko - "Resonance Amplifier Type of Oscillator with Shock Excitation"; L.N. Deryugin and B.Ya. Myakishev - "Diffraction, Reflecting, Side-radiation Antenna with a Controlled Polar Diagram Over a Wide Sector"; P.G. Seleznev and G.B. Glebovich - "Construction of a Magnetostriction Transducer for Magnetostriction Delay Lines"; L.G. Dorfman - "A Television Co-axial Separating, Bridge-type, Filter"; Ye.U. Badyr' - "Apparatus for Pulling a String along Pipes"; B.A.Barskiy and Ye.N. Kuzin - "A Differential Transformer or Choke for Measurement Bridges"; E.N. Ulanovskiy and Ye.V. Anurin - "Apparatus for Measurement of the Magnitude of the Reverse-current of Semiconductor Rectifier Elements"; Yu.A. Skripnik - "A Method for Determination of the Phase Angle Between Two Voltages and Apparatus for Realisation of this Method".

Card 2/2

KUZIN, Ye.P., inzh.

Using styrene acryl for repairing construction machinery. Stroi. i dor. mash. 9 no.1:33-34 Ja '64. (MIRA 18:7)

ACCESSION NR: AT3012129 S/2967/63/000/000/0136/0142

AUTHORS: Myamlin, A. N.; Mikhalev, V. M.; Kuzin, Ye. P.

TITLE: Arithmetic device for universal electronic computers with controls and integrated operations

SOURCE: Voprosy* vy*chislitel'noy matematiki i vy*chislitel'noy tekhniki. Moscow, 1963, 136-142

TOPIC TAGS: electronic computer, integrated operation, summator, pulse device, paraphase output, logical control, 6Zh2P lamp, 6N6P lamp

ABSTRACT: A special logical scheme arithmetic device using tube elements for high-speed operations at 1 megacycle frequency has been discussed. The summator in the arithmetic computer is a potential machine and the remaining circuitry, a pulse device. The summator uses type 6Zh2P and 6N6P lamps and records with a synchronized input. The device has three operating recorders, with one recorder connected to a paraphase output. One paraphase output is considered sufficient for any arithmetic operation. The arithmetic device operates with 39 discharge codes: 6 magnitude order discharges, 30 mantissae including signs, and 3 control discharges. To

Card 1/2

ANISIMOV, B.V.; KUZIN, Ye.S.; DOVZHENKO, Yu.M.

Selecting the logical system and parameters of a calculating machine used for program control. Nauch. dokl. vys. shkoly; mash. i prib. no.2:183-189 '59. (MIRA 12:12)
(Electronic calculating machines)

KUZIN, Ye. S., Cand Tech Sci -- (diss) "Automatization of the preparation of information in the processing of parts on milling machine-tools with programmed control." Moscow, 1960. 18 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin and Order of Labor Red Banner Higher Technical Institution im N. E. Bauman); 150 copies; price not given; (KL, 23-60, 124)

S/121/60/000/006/002/008

AUTHOR: Kuzin, Ye. S.

TITLE: The Preparation of Information for Program-Controlled Milling Machines

PERIODICAL: Stanki i Instrument, 1960, No. 6, pp. 4-7

TEXT: The operation program of the machine tool, i. e. the final information, should not only consider the geometric shape of the machine part but also a number of technological factors like shape and material of blanks, type of tools etc. The author points out that the final information should contain the coordinates of the position of the cutter center in the successive time instants instead of the coordinates of the machine part surface points. According to the author it is expedient to divide the process of preparing information into two stages. During the first stage all auxiliary calculations, the calculation of separate points of the machine part surface, cutting conditions etc. are to be effected. The second stage of the calculation process includes the rating of intermediate positions of the cutter center during the succession of time instants (proceeding from the parameters of trajectory sections obtained in the first calculation stage) and the coding of the final information by a unitary code.

Card 1/2

The Preparation of Information for Program-Controlled Milling Machines

S/121/60/000/006/002/008

One of the most important calculation stages is the transition from the surface of the machine part to the equidistant surface in which the movement of the cutter center is taking place. The author presents formulae for the calculation of the sought for surface and coordinates. The diversity of separate problems connected with the calculations of the first stage can be reduced to the solution of a series of standard arithmetic and logical problems. Once the set-up of separate subprograms to carry out the solution has been effected, it is possible to prepare information for any kind of machine part. There are 2 diagrams and 1 block-diagram.

Card 2/2

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S/194/62/000/007/025/160
D222/D309

AUTHORS: Anisimov, B.V., Dovzhenko, Yu.M., and Kuzin, Ye.S.

TITLE: A special purpose computer for the preparation of information for program-controlled machine-tools

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1962, abstract 7-1-138 shch (In collection: Primeneniye vychisl. tekhniki dlya avtomatiz. proiz-va M., Mashgiz, 1961, 295 - 306)

TEXT: One of the most promising methods of preparing machine parts having complex curved surfaces is the use of program-controlled milling machines. The information on the required machining containing the values for the coordinates of the center of the cutter at successive time intervals, and instructions for the execution of various auxiliary actions is recorded on a special carrier and is decoded by a unit located near the machine. At the department of VM MVGU, im. Baumana (VM MVGU im. Bauman) a simple special-purpose computer has been designed which is sufficiently fast for the preparation of information. The initial information contains the co-

Card 1/3

ordinates of a number of points of the surface, data on the transitions between the different sections of the components and a number of technological details. The output information must contain the coordinates for all the intermediate positions of the center of the cutter which it must occupy successively during the process (this is coded in a form convenient for the information processing unit). The special purpose computer МПИ (MPI) has two arithmetic units: a proper arithmetic unit (operating speed 50 operations per second) in which the technological calculations related to the optimal machining regimes are executed, the boundaries of the sections with various points of the surfaces are determined, and the parameters of the cutter trajectory are calculated, and an interpolator (operating speed 4000 operations per second) used in calculations of interpolational formulas to determine the intermediate points of cutter position. An analysis has shown that the whole variety of surfaces and transitions of components can be reduced to a number of standard subroutines. For the majority of components the set of standard subroutines, and also their sequencing is similar. The standard subroutines must be kept in storage, and before the solution a control program is called in. A magnetic drum is used as the

storage in unit MPI. The simplest interpolator circuit is obtained with a broken-line approximation of the cutter center with polynomials of the form

$$\left.\begin{aligned} x &= a_2 t^2 + a_1 t + a_0 \\ y &= b_2 t^2 + b_1 t + b_0 \\ z &= c_2 t^2 + c_1 t + c_0 \end{aligned}\right\}.$$

Here the coordinates are functions of time. The interpolator of the MPI computer calculates only some points of the trajectory according to the formulas; a linear-quadratic interpolation with respect to time is used. The block diagrams of the interpolator and of the arithmetic unit are given. An adder of the accumulator type is used. The operations are carried out only on the moduli of the numbers, the signs enter a block for sign analysis. Addition is done in a complement code in which one of the terms, if its sign is different, is always transformed. The operations of multiplication, division and the extraction of square roots is carried out with a round-off in the last digit. 5 figures. [Abstracter's note: Complete transl.]

Card 3/3

KUZIN, Ye.S., kand. tekhn. nauk

Arithmetic unit of a digital computer with sequential action. Vych. tekh. [MVTU] no.3:206-217 '63. (MIRA 17:2)

KUZIN, Ye.V., inzhener-podpolkovnik

Electron-beam tubes with symbol printing (charactron); from the foreign press. Vest.protivovozd.obor. no.3:48-50 Mr '61. (MIRA 14:7)

(Electron tubes)